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Sarah C.R. Elgin, Ph.D. (left), professor of biology, and Kathy Moreno, a Wentzville High School teacher, conduct fruit fly research.

Education partnership involves high school science teachers in university research

For students of a bygone era, one of the classic 'show-and-tell' science lessons was the presentation of Mexican jumping beans and the discussion of what makes the beans jump.

But this is the sophisticated '90s. Gone are jumping beans; in their place are jumping genes — genetic material that moves from one chromosome to another. Thanks to a special summer research program conducted at Washington University, two area science teachers will be able to show this amazing phenomenon and actually let their students jump genes on their own.

Kathy Moreno, a Wentzville High School teacher, and Loretta M. Fortner, a 19-year veteran science teacher at Hazelwood Junior High School in Florissant, took an intensive 10-week program in developmental genetics with Washington University biology professors Sarah C.R. Elgin, Ph.D., and David L. Kirk, Ph.D. They did so as participants in

the Summer Teacher Research Fellowship Program, sponsored by the American Society for Cell Biology, the National Science Foundation, the Society for Developmental Biology and the RGK Foundation of Austin, Texas.

This science education partnership provides authentic science research experiences for pre-college science teachers with follow-up support later in the school year. A key impetus of the program is to involve university science teachers in the education of pre-college science students.

Moreno and Fortner each studied the gene-jumping phenomenon, but worked on two different organisms, *Drosophila*, a fruit fly, and *Volvox*, a common algae. Moreno worked with Elgin and research associate Lori Wallrath, Ph.D., in *Drosophila* research. Fortner worked with Kirk and his associates in *Volvox* studies.

In Elgin's laboratory, Moreno has learned how to mobilize a marked transposable gene found in euchromatin, the active portion of the genome, and to find cases where the gene has "jumped" into heterochromatin, a usually inactive region of the genome. The genome is the entire collection of genes in an organism. Studying the response of that gene in its new environment will allow the researchers to understand better the function of heterochromatin. Moreno has helped the Elgin laboratory in preparing thousands of flies for analysis.

"In addition to her contribution to the ongoing research, Kathy also is thinking about the kinds of experiments she wants to do with her high school students using *Drosophila* as a genetic system," explained

Raising awareness

Olin School recognizes importance of teaching ethics in today's world

(This article focusing on the John M. Olin School of Business is the first in a series about the teaching of ethics at Washington University.)

On any given day, front page newspaper stories decry a lack of ethics in today's business world — the more money involved, the bigger the headline. Pollution, fraud, deceptive advertising and sexual harassment are just a sampling of the recurring themes.

This perceived decline in corporate ethics in the '80s, combined with an increased social awareness in the '60s and '70s, played a role in the addition of ethics to business school curricula nationwide.

"People have always realized that ethics should be taught, but some thought it was a 'soft' discipline and had no place in business school," said Raymond L. Hilgert, D.B.A., a professor of management and industrial relations who teaches an elective course in business ethics.

Today, the American Association of Collegiate Schools of Business requires accredited business schools to expose students to the principles of ethics, but does not mandate a required course or stipulate exactly how business schools should go about that task.

A spring accreditation study by Gary Hochberg, Ph.D., associate dean of the undergraduate program at the business school, confirmed his belief that ethical issues were being addressed in Simon Hall classrooms.

"I have never been convinced that business ethics are different from general ethics," said Hochberg, who has a doctoral degree in philosophy and has taught sessions on business ethics. "But I think it is important to get students to think systematically about ethical issues and ethical decision-making."

At Olin, students have exposure to ethical issues in required business classes, in distribution requirements offered by the College of Arts and Sciences, and in an elective course that focuses entirely on ethical decision-

making in business. Olin undergraduates must satisfy one requirement under the "Ethics and Values" distribution to graduate. These courses are taught in the humanities departments of the College of Arts and Sciences.

In 1989, a course devoted entirely to the study of business ethics was introduced to the curriculum. "Ethical Issues and Managerial Decision-making," organized and led by Hilgert, is open to graduate students and senior undergraduates.

In developing the course, faculty agreed that the objective was not to "convert" business students, but rather to make them more aware of the ethical dilemmas they will face every day in business. Case studies were blended with group discussions, reading materials and video vignettes, many of which were provided by the national Arthur Andersen and Co.'s Business Ethics Program.

The course brings together several professors and outside business people to discuss ethics as it applies to their areas of expertise. Other faculty include Marcia K. Armstrong, Ph.D., assistant professor of marketing, Arthur E. Carlson, professor emeritus of accounting, who introduces ethical case studies in managerial accounting and finance, and David Miller, socioeconomic liaison at McDonnell Douglas Corp., who leads a session on ethical decision-making at his company.

During the much-publicized ethical crises of the 1980s — the age of the "pin-striped outlaw" — corporations also started placing greater emphasis on ethics in the workplace and issued formal corporate policies and guidelines for ethical business conduct. Many of these corporations — Southwestern Bell Telephone, McDonnell Douglas Co. and Monsanto, among others — were among the top companies that traditionally have hired Olin graduates.

"I think this (business ethics) course is especially strong because it brings in so many professionals from inside and

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Author fights notion women 'can't have it all'

Author and Pulitzer Prize-winning journalist Susan Faludi will lecture on Wednesday, Sept. 14, as part of the University's fall Assembly Series. The lecture, titled "Is the Backlash Over?" will take place at 11 a.m. in Graham Chapel.

Faludi leapt into the spotlight in 1991 with the publication of *Backlash: The*



Susan Faludi

Undeclared War Against American Women, which won a National Book Critics Circle Award for general non-fiction.

In *Backlash*, she asserts that over the past decade the media, and political and cultural establishments have tried to convince women they can't "have it all." These establishments claim that the struggle for professional parity with men has brought more stress than women can handle. Faludi challenges the notion (which she believes was popularized by the media in the 1980s) that women feel miserable and conflicted

because they now have too much equality with men, can't take the pace and are desperately seeking husbands, children and a return to the familial nest.

Faludi said she believes that the aim in this "backlash" is to enlist women themselves in the fight to erase the gains made by the 1970s' feminist movement. In *Backlash* she sets out to debunk the myths, partly by questioning the way in which statistics are used to make good headlines.

Previously a writer for The New York Times, the Miami Herald and the Atlanta Constitution, Faludi joined the staff of the Wall Street Journal in 1990. She won a Pulitzer Prize in 1991 for a series of articles on the human impact of the leveraged buyout of the Safeway supermarket chain. She left the Wall Street Journal in 1992 for a one-year fellowship at Stanford University and is researching a new book that will examine masculinity and attitudes about feminism.

The lecture, which is free and open to the public, is sponsored by the Woman's Club of Washington University and Mortar Board, a national honor society for seniors.

For more information, call 935-5297.

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Medical Update

Alcohol use by fathers may affect fetal development

School of Medicine researchers have found that a single, large dose of alcohol taken by a father may have a negative impact on fetal development. The researchers discovered that when male rats were given a large dose of alcohol, up to 21 days before conception, the number of successful matings was cut in half. The exposure to alcohol also resulted in litters with fewer and smaller pups, and the mortality rate of the pups more than doubled.

Although the study was conducted with rats, researchers believe it may have immediate implications for humans.

Reporting recently in the journal *Life Sciences*, Theodore J. Cicero, Ph.D., professor of neuropharmacology in psychiatry, said the male rats were treated with a 5g/kg dose of alcohol, which is equivalent to approximately 0.2 percent blood alcohol content in humans. This level is twice the legal limit of intoxication in most states. The males then were mated with females who never had been exposed to alcohol or drugs.

"This was a very intoxicating dose of alcohol, but we wanted to give only one dose," Cicero explained. The single dose was important, he said, because it allowed researchers to clarify that resulting abnormalities were caused by alcohol and not other problems associated with chronic abuse of the drug.

Male rats in this study were placed with females 24 hours after they were exposed to alcohol. Mating behavior did not change, but fewer pregnancies resulted. The greater the time between exposure to alcohol and mating, the better the chances pregnancy would occur. If mating took place within six to eight days of alcohol exposure, the birth rate was cut by more than 75 percent. Twenty-one days after treatment with alcohol, birth rates were still lower than in control rats.

"Up to 21 days out, we're seeing less than 50 percent of the alcohol-treated animals that are able to mate successfully. In the normal rat, mating almost always results in a pregnancy, so this is a very significant effect," he said.

Cicero also said the effect appears to be specific to alcohol. He compared alcohol to other drugs such as cocaine and morphine and found that those drugs, in similar large doses, had no measurable effect on birth rate or fetal development.

Because the females in the experiment were not exposed to alcohol, fetal development should have been normal, Cicero said, unless the alcohol was causing problems at conception.

Unlike Fetal Alcohol Syndrome, where the mother ingests alcohol and the offspring are bathed in the drug during development, these experiments suggest that if the dose is large enough, alcohol ingested by the father can cause changes in sperm and either inhibit conception or complicate development.

Cicero said he believes several mechanisms could cause these results. Either, he said, the alcohol directly reduces the sperm count, or perhaps it produces mutations in the chromosomal or biochemical makeup of the sperm. It also is possible that alcohol

accumulates in semen and is transported by ejaculation into the egg where it can affect fertilization and the developing fetus. It also is possible that alcohol reduces the motility of sperm, or its capacity to fertilize eggs, by altering biochemical properties of the semen.

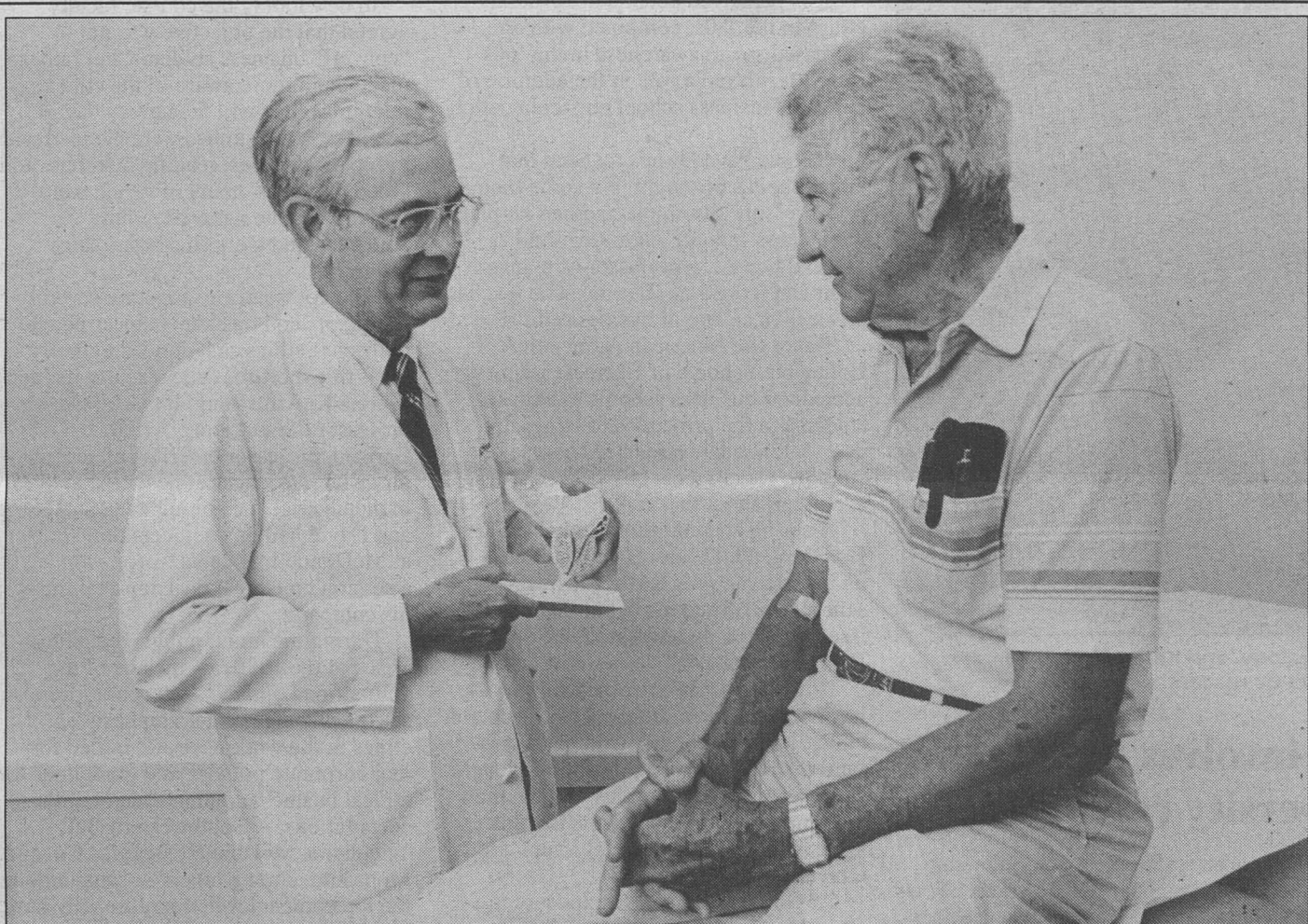
Regardless of the exact mechanism, however, he said it is clear that alcohol is having a dramatic effect. Cicero, who also is associate vice chancellor for animal affairs and associate dean at the medical school, said he hopes this research will prompt clinicians to look more carefully at the role of paternal alcohol use in fetal developmental problems in humans.

"There are, of course, differences between work in rats and work in humans, but these findings are so dramatic that we may want to start asking some questions in clinical settings. If you think about Fetal Alcohol Syndrome, we know that it makes sense to ask whether a mother ingested drugs or alcohol during pregnancy. However, no one, to my knowledge, would think to ask whether the father had," he said.

Cicero said he is not sure why such striking results would have gone unnoticed until now, but he compares these findings to the original work with Fetal Alcohol Syndrome 20 years ago. At that time, he said, many wondered how the problem could have gone unnoticed for thousands of years.

"I think this situation is similar. It is very possible that there is a paternal contribution to miscarriages and birth defects, and our hope is that our studies in the rat model will convince clinicians and others to begin to ask questions," he said.

— Jim Dryden



The Food and Drug Administration (FDA) recently approved the prostate-specific antigen (PSA) blood test for detecting prostate cancer in men. To make its decision the FDA used data from PSA screening studies conducted by William J. Catalona, M.D., chief of urologic surgery. Arthur DeReusse, pictured above with Catalona, has been enrolled in one of the screening studies for six years.

Scientists receive \$4.4 million for bone cell research

Four teams of investigators at the School of Medicine will share a \$4.4 million program project grant to study the communication between bone cells in the body's skeleton. Their research may lead to new treatments for osteoporosis and other bone disorders.

The four-year grant, awarded by the National Institutes of Health, will help researchers explore how communication among bone cells leads to new bone formation and how miscommunication may cause bone disorders such as osteoporosis and osteoarthritis. The overall program is directed by Louis V. Avioli, M.D., Shoenberg Professor of Medicine and director of the Division of Bone and Mineral Diseases.

"We are trying to unravel the molecular mechanisms that regulate and control bone cell function," Avioli said. "We suspect that the primary defect in bone disorders like osteoporosis is the inability of bone cells to communicate at the molecular level." Avioli also directs the Division of Endocrinology and Metabolism at Jewish Hospital.

The research projects will enable scientists to better understand the delicate balance between bone-forming cells called osteoblasts and bone-resorbing cells called

osteoclasts. Normally, except in growing bones, the rates of bone formation and resorption are equal to each other so that the total mass of bone remains constant. Osteoporosis, which primarily affects post-menopausal women, is believed to result when osteoclasts outperform osteoblasts, leading to progressive bone loss. The result is a net loss in bone mass and strength, which ultimately can lead to painful bone fractures characteristic of osteoporosis.

As part of the grant, Avioli and co-investigator Roberto Civitelli, M.D., assistant professor of medicine, will direct a project to investigate the complex interactions between different types of osteoblasts and between immature and mature osteoblasts and nutrients in the extracellular environment. The project will involve identifying molecules on the surface of osteoblasts that may play a critical role in osteoblast differentiation and communication.

Stephen L. Gluck, M.D., associate professor of medicine and assistant professor of cell biology and physiology, and Howard G. Welgus, M.D., professor of medicine, will study osteoclast development and function. Their project will

involve identifying the signaling molecules released by osteoblasts that control osteoclast development.

Keith A. Hruska, M.D., Ira M. Lang Professor of Nephrology and associate professor of cell biology and physiology, will direct a project to determine how vitamin D influences osteoblast function and osteoclast differentiation. Vitamin D controls the rate of bone turnover and increases bone cell communication. Hruska and his team will explore those interactions and determine how vitamin D regulates intracellular messengers that determine osteoblast function.

While the influence of osteoblasts on osteoclast development and function has been established, researchers now are beginning to explore whether the converse holds true — that is, whether bone-resorbing cells influence bone-forming cells. Philip Osdoby, Ph.D., professor of biology, and co-investigator Patricia Collin-Osdoby, Ph.D., research assistant professor of biology, will direct a project to investigate the role of osteoclasts in controlling osteoblast development and action. Eventually, it may be possible to modify the communication to produce a net increase in new bone formation.

Medical Center Block Party will be held Sept. 8

The fifth annual Washington University Medical Center Block Party will be held Thursday, Sept. 8, from 11 a.m. to 2 p.m. on Children's Place, near St. Louis Children's Hospital and the Clinical Sciences Research Building. Food, games and entertainment will be provided for the staffs of Children's Hospital, Barnes Hospital, Jewish Hospital, Central Institute for the Deaf and the School of Medicine.

For more information, call 454-2045.

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Washington

WASHINGTON UNIVERSITY IN ST. LOUIS

Washington People

Political economist links disciplines, people

A big, slightly worn floral couch, squeezed between two walls of overstuffed bookshelves, dominates the far end of Gary Miller's office in Simon Hall. One of the back cushions is propped up against an arm of the couch as if someone recently had been relaxing with a book.

Miller, Ph.D., the Reuben C. Taylor Jr. and Anne Carpenter Taylor Professor of Political Economy at the John M. Olin School of Business, sees one visitor out as he welcomes another in. It's typical of the daily traffic in his office.

"He welcomes students to come during office hours to discuss things with him," said Trina Williams, a 1994 graduate of the business school. "I got the feeling that when a student went in, he was interested in that student's problems and wasn't like, 'I'm busy,' and pushing people out the door. If I needed help, he would sometimes take an hour or two to get to the heart of it."

Williams is studying public policy at Oxford University, courtesy of a Rhodes Scholarship. Miller wrote a recommendation for her scholarship nomination.

Political economist Miller was — and still is — a strong mentor, Williams said.

"He gave me lots of good advice when I was looking at different things: economics, public policy and business," she said.

Students sometimes complain their favorite teachers don't get promoted if they aren't also strong researchers. While the struggle over research vs. teaching wages on, Miller succeeds in bringing together the best of both worlds,

colleagues and students say. He provides top research in politics, business and economics, guidance on academic programming and strong teaching in the classroom.

Miller consistently received excellent ratings from course evaluations. In those course evaluations, students rate a teacher on a scale of 1 to 5, with 5 being the highest. At Olin, the average score is 3.8. But of 101 students responding from the first-year introduction to business course, 95 rated him a "5."

"I've never seen anything like that before," said Gary Hochberg, Ph.D., associate dean for the Olin undergraduate program. "And the only reason we might see it again is that he's teaching the course again next year."

Miller's wife of 23 years, Anne, said since she has known him, his goal was to be a teacher — not a "college professor" or "research expert," but a teacher.

"I know that he gets a lot of satisfaction out of it," she said. "I don't know the magic touch of it, but teaching was the first thing for him."

He also likes the chance to show his somewhat wacky sense of humor, she said. Miller likes wearing his "dead fish" tie while teaching first-year students about maritime business. And for the military-industrial complex lesson? He dons a jumpsuit made out of camouflage material.

"You have to be confident in yourself to do that and know that people are laughing at your tricks and not at you," Anne said.

Miller grew up in a very close-knit family in Champaign, Ill. His mother was a music teacher for home-bound students. His father worked in the building supply business. "They were a family that had a ton of fun together," Anne said. "Music binds the family together — it's a really strong thread." Miller plays the piano, clarinet, saxophone and recorder.

Miller's parents didn't have a lot of money while the children were growing up, but they did have high expectations. All of his brothers and sisters were top students. "We didn't conceive of an alternative — not with our parents," Miller said.

All of his siblings went to the University of Illinois, where Miller graduated with Highest University Honors and Highest Honors in political science in 1971. He received his Ph.D. in 1976 from the University of Texas.

He taught at the California Institute of Technology and Michigan State University before coming to Washington

University in 1983. In addition to his chaired position at Olin, he is an adjunct professor of political science and is a fellow of the Center in Political Economy.

Miller has been active at the University, publishing four books and two dozen papers. He is the chair of the advisory committee on the undergraduate business curriculum committee, has worked on the University committee on the undergraduate experience and served as interim co-director of the Business, Law and Economics Center last year, in addition to regularly being voted "Teacher of the Year."

One of Miller's biggest projects has been chairing the undergraduate curriculum committee. Although getting a group of faculty members to reach consensus on issues as

much more complicated story about how firms and political organizations should structure themselves. Successful firms are ones that don't have mechanistic incentive structures, but combine incentives with concern for employees — that are oriented to welfare of employees."

Miller's book documents what motivates some people to work hard while others work for personal gain at the expense of the company or co-workers.

"Many managers still think employees need to be coerced into performing with some system of carrots and sticks, but my research suggests this approach has its limitations," Miller has said. "Managers who effectively use political skills to inspire trust and cooperation in their workforce will always have a competitive advantage."

Miller's other research interests include legislative decision-making, the formation of institutions, hierarchies and decision-making, the political economy of businesses, corporate governance, leadership and, in public policy, food and nutrition (his wife is a nutritionist) and environmental policy.

Miller doesn't see a dichotomy in linking business and politics. To Miller, business is a political organization. *Managing Hierarchies* bridges the gap between organizational economics and the work done by sociologists on organizations.

His goal, Miller writes "... was to make it clear that the theoretical problems treated in the literature on political economy are not divorced from reality, but are the stuff of everyday management headaches and

conundrums facing ordinary people in any hierarchy."

Miller enjoys working on research that has practical applications for business and politics. But he also knows that research models that show the "best" way to structure an organization often don't address how difficult implementing those models can be.

Take the results that suggest that businesses can do well by giving teams a sense of ownership in their work area. It costs quite a bit to train workers to do that kind of self-management, for example. It takes a long-term commitment that can have high short-term costs.

Miller is working with anthropologist Kathleen Cook, research associate in anthropology and adjunct instructor at Washington University, on studying how hierarchies develop in other species and how that relates to how they work — and how they can work well — in human organizations.

Miller, 45, "grew up" as an academic in political science. His interest in politics and public policy started, in part, because "this was the '60s," he said. But while he had similar interests to the social scientists, he wanted to look at the issues in more than a theoretical way, he said.

"For them (social scientists), the policy is practically everything," Miller said. "What I'm really interested in are the kind of core questions, such as how does hierarchy work?"

Social science focused on trying to answer questions such as "this welfare plan will work better than that one," Miller said. But that was a bit too theoretical and nebulous for Miller.

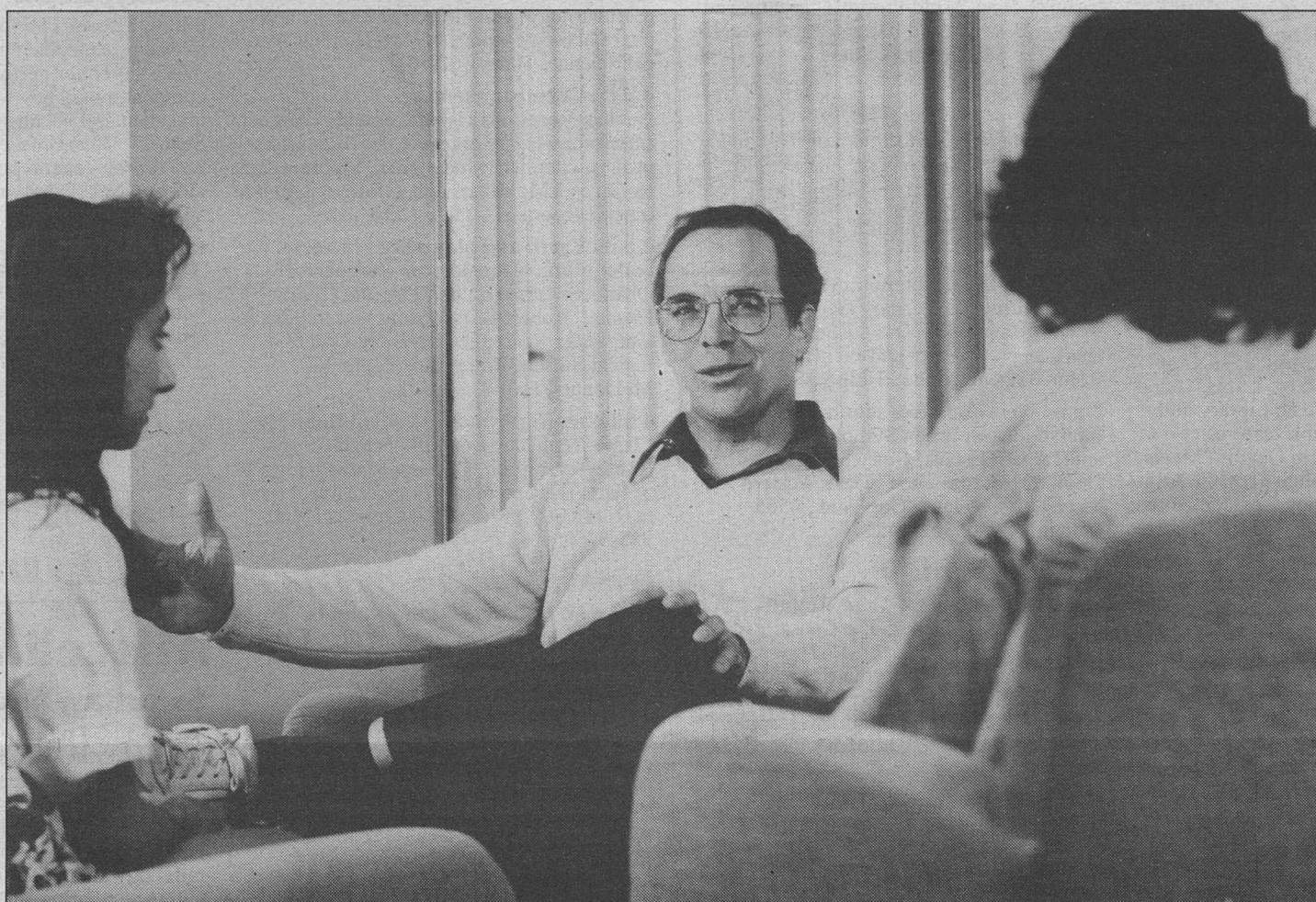
He turned to economics, but economics models, based on the idea that people act rationally, didn't offer better answers. "What's interesting to a social scientist is not the work that economics can explain. When we take sociology into effect, these models — as elegant as they are — don't work at all."

He combined his interests in politics, policy and social issues with his interest in the methods of economics. The result: political economics.

Building bridges — between people as well as disciplines — keeps Miller interested in his work. Colleagues like North admire the creativity that allows Miller to keep building.

"Gary's got an imaginative mind, well trained, disciplined and creative," North said. "I think he's one of the real gems of the University."

— Catherine Behan



Visitors are a familiar sight in the office of Gary Miller, Ph.D., the Reuben C. Taylor Jr. and Anne Carpenter Taylor Professor of Political Economy.

"Gary's got an imaginative mind, well trained, disciplined and creative. I think he's one of the real gems of the University."

— Douglass C. North

important as curriculum can be difficult, Hochberg said the faculty were eager to work with Miller because it was clear Miller had "done his homework" and because he gently pushes toward the goal.

"He always believes that we're going to make something good out of this — whatever *this* is," Hochberg said. "No matter how gloomy things look at any given moment, he seems eternally convinced that we'll get something good out of it. And we do."

Colleagues say that kind of commitment to the overall education of students is not common.

"It's very rare to see people concerned about the broad range of the things it takes to make a university work well," said Douglass C. North, Ph.D. North, the Henry R. Luce Professor of Law and Liberty, was a co-winner of the 1993 Nobel Prize in economic science.

"There are not that many heads screwed on right; not that many people who are good teachers, good researchers and just nice guys," North said.

Miller shares research interests with North, and North has been an editor and consultant in Miller's work, including his most recent book *Managerial Dilemmas: The Political Economy of Hierarchy*.

"It is original research that brings together general economic and political theory," North said. "He's telling a

Calendar

Sept. 8-17



Exhibitions

"A Gallery of Modern Art." Features 85 19th- and 20th-century masterpieces from the Gallery of Art's permanent collection, considered one of the finest university collections in the country. Through Oct. 16. Opening reception: 7 p.m. Sept. 9. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. 935-5490.

"Herb Weitman: Quintessential Campus Photographer." Features the work of renowned Washington University photographer Herb Weitman, including 50 black-and-white and color photographs of the University's campus, students and professors. Through Sept. 11. Gallery of Art, lower gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. 935-5490.

"Orpheus on the Mississippi: 19th-Century Music Publishing in St. Louis." Sponsored by Gaylord Music Library and Special Collections. Exhibit features examples of sheet music from Gaylord Music Library's collection. Through Sept. 11. Olin Library, Special Collections, Level 5. Hours: 8:30 a.m.-5 p.m. weekdays. 935-5495.

"Posters of Leonetto Cappiello." Features works of Cappiello, an artist who is renowned for his ability to produce image association. He has been described as the father of modern advertising. Through Sept. 11. Some posters will be for sale. Bixby Gallery, Bixby Hall. Hours: 10 a.m.-4 p.m. weekdays; 1-5 p.m. weekends. 935-4643.



Films

Thursday, Sept. 8

7 and 9 p.m. Filmboard Foreign Series. "Nosferatu" (1922, B&W, silent). This is the first of the great vampire movies. Room 100 Brown Hall. Cost: \$3. **For 24-hour Filmboard hotline, call 935-5983.**

Friday, Sept. 9

6:30 and 10 p.m. Filmboard Feature Series. "Short Cuts" (1993). (Also Sept. 10, same times, and Sept. 11 at 7 p.m.) Room 100 Brown Hall. Cost: \$3.

Wednesday, Sept. 14

7 and 9 p.m. Filmboard Classic Series. "Breakfast at Tiffany's" (1961). (Also Sept. 15, same times.) Room 100 Brown Hall. Cost: \$3.

Friday, Sept. 16

7 and 9:30 p.m. Filmboard Feature Series. "What's Eating Gilbert Grape?" (1993). (Also Sept. 17, same times.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series. "The Neverending Story" (1984). (Also Sept. 17, same time.) Room 100 Brown Hall. Cost: \$3.



Lectures

Thursday, Sept. 8

Noon. Genetics seminar. "How Does RNA Polymerase Recognize Regulatory Signals During Transcript Elongation?" Bob

Landick, asst. prof., Dept. of Biochemistry and Molecular Biophysics. Room 816 McDonnell Medical Sciences Bldg. 362-7076.

Noon. Pediatrics seminar. "Excitotoxicity of the Developing CNS," Chris Ikonomidou, pediatric neurology fellow, Division of Neurology. Third Floor Aud., St. Louis Children's Hospital. 464-6000.

1:10 p.m. Social work lecture. "The State of Children and Families: A Reality Check," David Liederman, executive director, Child Welfare League of America, Washington, D.C. Brown Hall Lounge. 935-4909.

3 p.m. African and Afro-American studies lecture. "The World From Behind the Veil: Afro-Americans and Foreign Affairs, 1935-1960," Brenda Gayle Plummer, prof., Dept. of History, U. of Wisconsin, Madison. Room 221 McMillan Hall. 935-8556.

4 p.m. Chemistry seminar. "Strong H-bonding: Historical Precedence and Future Prospects," Ron See, asst. prof. of chemistry, St. Louis U. Room 311 McMillen Lab. (Coffee: 3:40 p.m. outside Room 311.) 935-6530.

4 p.m. Earth and planetary sciences colloquium. "Quaternary Geology of Egypt," Raymond E. Arvidson, prof. and chair, Dept. of Earth and Planetary Sciences. Room 362 McDonnell Hall. 935-5610.

4 p.m. Neurosciences seminar. "Reciprocal Interactions Between Sympathetic Neurons and Target Tissues," Story Landis, prof., Dept. of Neurosciences, Case Western Reserve U., Cleveland. Cori Aud., 4565 McKinley Ave. 362-1421.

Friday, Sept. 9

9:15 a.m. Pediatric Grand Rounds. "Mites, Cats and Cockroaches: The Causal Role of Indoor Allergens in Asthma," Thomas F. Smith, assoc. prof. of pediatrics and assoc. director, Division of Allergy and Pulmonary Medicine, St. Louis Children's Hospital. Clopton Aud., 4950 Children's Place. 454-2713.

Noon. African and Afro-American studies lecture. "Haiti and the United States: Containment and Quarantine," Brenda Gayle Plummer, prof., Dept. of History, U. of Wisconsin, Madison. Room 217 McMillan Hall. 935-8556.

Noon. Cell biology and physiology seminar. "Src Family Kinases: Still Oncogenes Without Function," Andrew S. Shaw, asst. prof., Dept. of Pathology. Cori Aud., 4565 McKinley Ave. 362-4614.

Monday, Sept. 12

4 p.m. Biology seminar. "From the Receptor to the Nucleus: Signalling Pathways Controlling Multicellular Development in Dictyostelium," Richard A. Firtel, prof., Center for Molecular Genetics, U. of California, San Diego. Room 322 Rebstock Hall.

4 p.m. Hematology-oncology seminar. "Transfection of N-acetylglucosaminyltransferase III Gene Into Melanomas Suppresses Lung Metastasis," Naoyuki Taniguchi, prof. and chair, Dept. of Biochemistry, Osaka U. Medical School, Suita, Japan. Room 8841 Clinical Sciences Research Bldg. 362-8803.

7 p.m. Molecular biophysics seminar. "Magnetic Resonance Approaches to Biophysics in Living Systems," Joseph Ackerman, research prof., Dept. of Medicine. Room 311 McMillen Lab. 362-1421.

Tuesday, Sept. 13

4 p.m. Chemistry seminar. "Preferential Solvation in Two- and Three-component Systems," Arie Ben-Naim, prof., Dept. of Physical Chemistry, The Hebrew University of Jerusalem. Room 311 McMillen Lab. (Coffee: 3:40 p.m. outside Room 311.) 935-6530.

5 p.m. Tumor genetics seminar. "The Bcl-2 Gene Family and Regulation of Cell Death," Stanley Korsmeyer, Distinguished University Professor of Medicine. Room 228 BioTechnology Center. 362-7149.

Wednesday, Sept. 14

8 a.m. Obstetrics and Gynecology Grand Rounds. "Salvage Therapy of Ovarian Cancer," Vickie Baker, assoc. prof. and director, Division of Gynecologic Oncology, U. of Texas, Houston. Clopton Aud., 4950 Children's Place. 362-3122.

11 a.m. Assembly Series Woman's Club/Mortar Board lecture. "Is the Backlash

Over?" Susan Faludi, Pulitzer Prize-winning journalist and author of *Backlash: The Undeclared War Against American Women*. Graham Chapel. Reserved seating has been arranged for Woman's Club members and their guests. 935-5285.

3 p.m. Mathematics analysis lecture. "The Calderón-Zygmund Operator and Wavelets," Yves Meyer, prof., Dept. of Mathematics, U. of Paris IX, Ceremade, France. Room 199 Cupples I Hall. 935-6760.

Thursday, Sept. 15

Noon. Genetics seminar. "Is Mouse Notch the Functional Homologue of *Drosophila* Notch?" Rafi Kopan, asst. prof. of medicine (dermatology) and molecular biology and pharmacology. Room 816 McDonnell Medical Sciences Bldg. 362-7072.

4 p.m. Chemistry seminar. "Timing Nuclear Reactions Using Complex Fragment Interferometry," Romualdo deSouza, asst. prof. of chemistry, Indiana U., Bloomington. Room 311 McMillen Lab. (Coffee: 3:40 p.m. outside Room 311.) 935-6530.

4 p.m. Earth and planetary sciences colloquium. "Geomorphic Response of Ozarks Streams to Land Use and Climatic Events," Robert B. Jacobson, research geologist, Water Resources Division, U.S. Geological Survey, Rolla, Mo. Room 362 McDonnell Hall.

4:30 p.m. Mathematics colloquium. "Time-frequency Logarithms and Chirps," Yves Meyer, prof., Dept. of Mathematics, U. of Paris IX, Ceremade, France. (Tea: 4 p.m. in Room 200.) Room 199 Cupples I Hall. 935-6760.

Friday, Sept. 16

9:15 a.m. Pediatric Grand Rounds. "Update on Adult Lung Transplantation," Alec Patterson, prof. of surgery, Division of Cardiothoracic Surgery. Clopton Aud., 4950 Children's Place. 454-2713.

Noon. Cell biology and physiology seminar. "A New Role for IP₃ Receptors: Ca²⁺ Release During Nuclear Vesicle Function," Katherine Wilson, Dept. of Cell Biology and Anatomy, Johns Hopkins U. School of Medicine, Baltimore. Cori Aud., 4565 McKinley Ave. 935-6950.

Saturday, Sept. 17

9 a.m.-3:30 p.m. Ophthalmology symposium honoring Dr. Adolph Cohen. Symposium features the following talks: "IRBP, Retinoids and the Visual Cycle," Harris Ripps, prof., depts. of Ophthalmology, and Anatomy and Cell Biology, U. of Illinois College of Medicine; "RDS/Peripherin and Its Role in Inherited Retinal Degenerations," Dean Bok, prof., Dept. of Ophthalmology, Jules Stein Eye Institute, U. of California, Los Angeles; "The Photoreceptor Circadian Clock: Physiological Significance and Role in Transcription Regulation," Joseph Besharse, prof., Dept. of Anatomy and Cell Biology, U. of Kansas Medical Center; "The Role of Excitatory Amino Acid Receptors in the Receptive Field Organization of Mammalian Retinal Ganglion Cells," Ethan Cohen, asst. prof., Dept. of Ophthalmology and Visual Science, Yale U. School of Medicine; "Glutamate Then and Now, After 25 Years," John Olney, prof., Dept. of Pathology; and "The Role of Glutamate Receptors in Plasticity in the Visual Cortex," Nigel Daw, prof., Dept. of Ophthalmology and Visual Science, Yale U. School of Medicine. Cori Aud., 4565 McKinley Ave. 362-4284.



Music

Thursday, Sept. 8

5 p.m. Wind ensemble concert. "Pops Concert at Bowles Plaza," directed by Dan Presgrave, instrumental music instructor and lecturer in music. Bowles Plaza, Mallinckrodt Center. 935-5581.

Friday, Sept. 16

8 p.m. Music concert. "Lute Songs From England, Spain and Italy" features tenor Willard Cobb, noted performer of early

music, and Rodney Stucky, guest lutenist from Cincinnati. Umrath Hall Lounge. 935-5581.



Performances

Friday, Sept. 16

8 p.m. Edison Theatre "OVATIONS!" Series presents the Kronos Quartet, chamber music's premier performers of 20th-century compositions. They will be joined by Nubian musician and vocalist Hanza El Din. (Also Sept. 17, same time.) Edison Theatre. Cost: \$20 for the general public; \$16 for senior citizens, WU faculty and staff; and \$11 for WU students and children. 935-6543.

Saturday, Sept. 17

2 p.m. Edison Theatre "ovations! for young people" series presents the Kronos Quartet in a children's concert. Edison Theatre. Cost: \$10. 935-6543.



Miscellany

Saturday, Sept. 10

8 a.m.-12:30 p.m. Office of Continuing Medical Education seminar. "Diagnosis and Current Treatments: Parkinson's Disease, Dystonia, Drug-induced Movement Disorders." WU faculty includes Joel S. Perlmutter, assoc. prof. of neurology and radiology and director, Movement Disorders Clinic and Parkinson's Disease Information and Referral Center, and Lee W. Tempel, asst. prof. of neurology. Guest faculty includes John G. Nutt, prof. of neurology and pharmacology, Oregon Health Sciences U., and director, The Parkinson's Center of Oregon, Portland, and Mark Stacy, asst. prof. of neurology and director, Parkinson's Disease and Movement Disorders Center, U. of Missouri, Columbia. Co-sponsored by the American Parkinson Disease Association. Wohl Aud., 4960 Children's Place. For registration and credit info., call 362-6893.

9 a.m. University College skill development workshop. "Goals, Time, and Taking Notes." Learn to set appropriate goals, understand the demands of being a student and identify expectations. Learn the techniques for meeting deadlines and apply strategies for listening and note-taking. Cost: \$20. Room 30 January Hall. For more info. and to register, call 935-6788.

10 a.m. Volunteer orientation. "Community Connections Volunteer Orientation," Wendy Hyman-Fite, director, English as a Second Language program, and Luisette Behmer, Host Family Program coordinator. Stix International House. 935-4787.

10 a.m.-noon. University College fiction writing workshop. This eight-week fiction workshop will explore such techniques as creating an environment, developing characters, and constructing a plot. Instructed by Barbara Eldridge, adjunct faculty member, Dept. of English. Cost: \$185. For credit and registration info., call 935-6788.

10 a.m.-noon. University College poetry writing workshop. This eight-week poetry workshop will include instruction in imagery, diction, rhythm and form. Instructed by Jeff Hamilton, graduate student, Dept. of English. Cost: \$185. For credit and registration info., call 935-6788.

10 a.m.-noon. University College playwriting workshop. This eight-week playwriting workshop will discuss all aspects of playwriting and offer practical advice on production and marketing. Instructed by Joan Lipkin, author and artistic director of That Uppity Theatre Company in St. Louis. Cost: \$185. For credit and registration info., call 935-6788.

10 a.m.-noon. University College non-fiction writing workshop. "The Varieties of Creative Non-Fiction" will explore the essay tradition, autobiography, travel writing and nature writing. Instructed by Rockwell Gray, adjunct faculty member, Dept. of English. Cost: \$185. For credit and registration info., call 935-6788.

Tuesday, Sept. 13

4 p.m. Volunteer orientation. "Community Connections Volunteer Orientation," Wendy Hyman-Fite, director, English as a Second Language program, and Luisette Behmer, Host Family Program coordinator. Stix International House. 935-4787.

8 p.m. International Writers Center reading. Paul Auster, New York novelist, translator, essayist and poet, will read from his works. Auster is author of *The New York Trilogy*, *In the Country of Last Things*, and *Moon Palace*. His latest novel, *Mr. Vertigo*, set in St. Louis, was just published. West Campus Conference Center, lower level, former Famous-Barr bldg., Clayton. Cost: \$5; free for senior citizens and students with I.D. 935-5576.

Wednesday, Sept. 14

7 p.m. Yom Kippur services. Egalitarian Conservative service in Edison Theatre. Reform service in Goldfarb Hillel Center, 6300 Forsyth Blvd. 726-6177.

Thursday, Sept. 15

9 a.m. Yom Kippur service. Egalitarian Conservative Service in Edison Theatre. 726-6177.

10 a.m. Yom Kippur service. Reform service in Goldfarb Hillel Center, 6300 Forsyth Blvd. 726-6177.

Saturday, Sept. 17

9:30 a.m. University College Library Workshop. An orientation and information session on how to use a major university library by using basic research techniques. Olin Library. For more info. and to register, call 935-6777.

Calendar guidelines

Events sponsored by the University — its departments, schools, centers, organizations and its recognized student organizations — are published in the Calendar. All events are free and open to the public, unless otherwise noted.

Calendar submissions should state time, date, place, sponsor, title of event, name of speaker(s) and affiliation, and admission cost. Quality promotional photographs with descriptions are welcome. Send items to Judy Ruhland at Box 1070 (or via fax: 935-4259). Submission forms are available by calling 935-4926.

The deadline for all entries is noon Tuesday one week prior to publication. Late entries will not be printed. The Record is printed every Thursday during the school year, except holidays, and monthly during the summer. If you are uncertain about a deadline, holiday schedule, or any other information, please call 935-4926.

Clown teeters on brink of slumberland

The stars of the "Pickle Family Circus," Diane Wasnak and Jeff Raz, aka: Pino & Razz, will perform "Eyes Wide Open" at 2 p.m. Sept. 25 in Edison Theatre as part of the "ovations! for young people" series.

In "Eyes Wide Open" gentle giant Razz is trying to sleep while petite Pino is merrily keeping him in that surrealistic world on the brink of slumberland. The results are anything but simple, as Pino becomes a mutant mosquito, an uncontrolled baby and a warped, gibberish-spouting storyteller.

Meanwhile Razz tries to keep ever-enlarging balls aloft in time to an ever-changing piece of music. In the end, they reconcile in a wild finale involving the

audience and with Pino on accordion and Razz on the baritone horn. Simultaneously the two clowns execute breath-taking acrobatics.

According to Wasnak, the show is visually stimulating enough for kids and contains enough intellectual stuff for the adults. "It's a show for people of all ages," she said.

"Eyes Wide Open" is directed by internationally known choreographer/dancer Tandy Beal and China's acrobatic master trainer Lu Yi.

Tickets to "ovations! for young people" events are \$10 and are available at the Edison Theatre box office or through Metrotix at 534-1111.

For more information, call 935-6543.

Students find ethics lesson worthwhile — from page 1

outside of Washington University who have unique perspectives on the ethical issues that arise in different areas of business," Armstrong said.

"We attempt to show that ethical decision-making will be involved in all aspects and functions of a student's future professional business career," Hilgert wrote in an article published in *The Diary of Alpha Kappa Psi*, the journal of a national business fraternity. "We try to impress upon students that if a manager looks for ethical ways of deciding in most problem situations, usually these can be found."

From the first class, student reaction has been very enthusiastic and, in the fall of 1990, the faculty voted to make the course a permanent elective.

Although some business schools require students to take a specific course in business ethics, Hochberg said he would be hesitant to make any single ethics course in a professional school mandatory. He said he prefers to have ethical issues arise naturally in classroom discussion.

Armstrong said ethical issues emerge frequently in her marketing courses. She cites one case involving the marketing of "Powermaster," a high-alcohol malt liquor that originally was targeted to the inner city.

"Marketing questions like this pose ethical dilemmas, like how far do you go to protect people's health?" Armstrong said. "I don't teach a specific section on ethics, but ethical issues come up all the time when you talk about marketing and market research. None have clear-cut answers. What I try to do is raise consciousness and make the students think about the ethics of marketing."

There are some people who believe that ethics cannot be taught; that if a student has not acquired good ethics by the time he or she reaches business school, it is simply too late.

"Can ethics be taught? Absolutely," said University Registrar Stuart Yoak, who has a doctorate in philosophy and lectures on business ethics. "I tell my students on the first day of class that ethical decision-making is a rational process that we can analyze, understand and get better at."

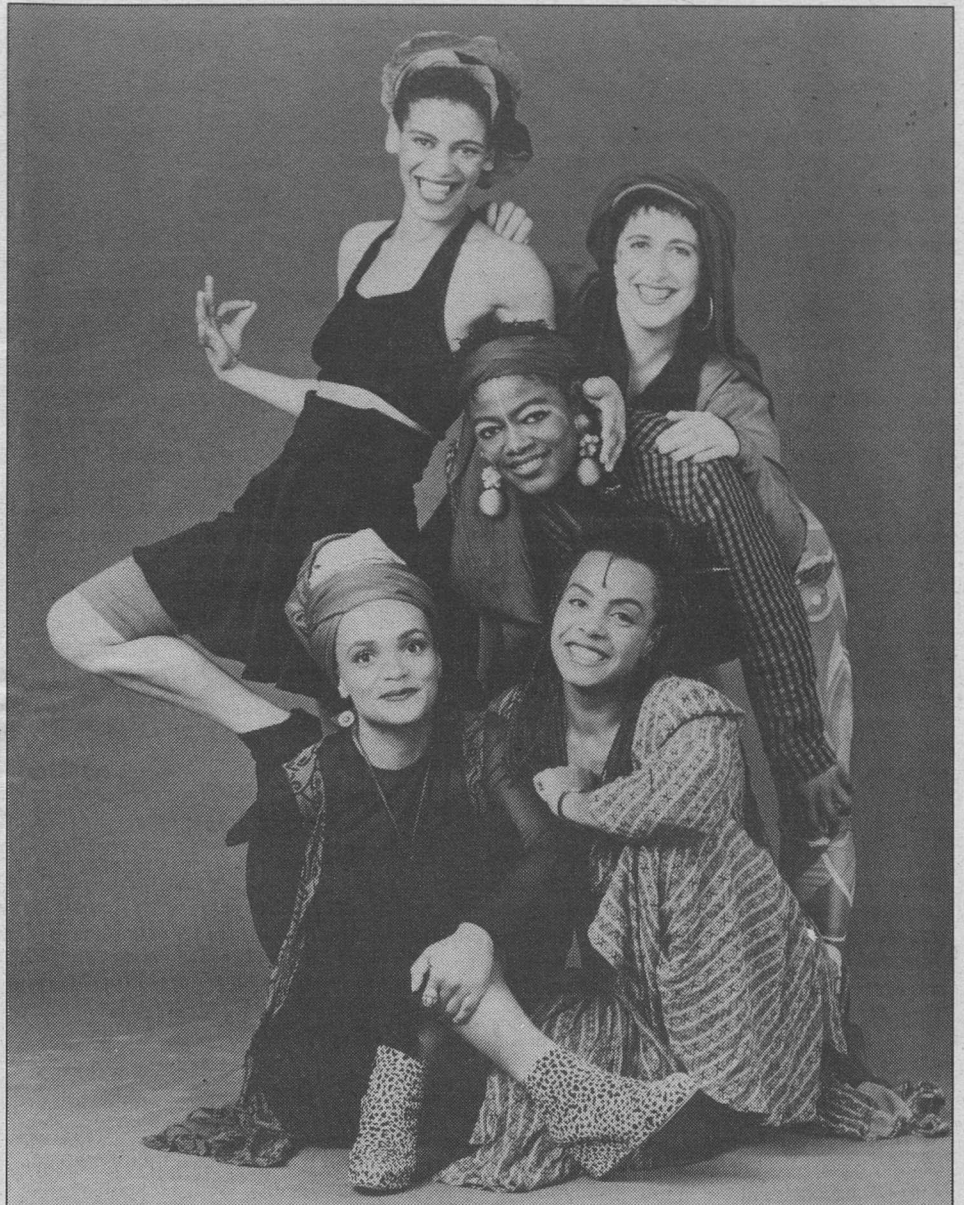
"In teaching ethics, I do not teach personal values, that's uncomfortable territory," Yoak continued. "Part of teaching business ethics is an awareness issue; making people sensitive to the fact that closing a plant in the United States and moving it to another country is really an expression of one's values, not just a bottom-line, profit-driven decision. I try to sensitize students to some of the issues they will face every day in the business world and give them the tools to be better, ethical decision-makers."

Students seem to think this lesson is worthwhile. Two surveys of 88 alumni of the business ethics course revealed that 86 percent thought business ethics should be a required course and 84 percent felt the course had helped them in meeting ethical challenges ranging from financial manipulation to sexual harassment.

William A. Grana Jr., a joint J.D./M.B.A. student who took "Ethical Issues and Managerial Decision-making" in the spring, said he believes ethical principles are not innate and must be learned from one's environment — in the family, in church and in educational institutions.

"After having taken the business ethics course, I do not really believe that I am standing on higher ethical ground," he said. "However, I do think that the course has prepared me to better recognize ethical situations and has encouraged me to always aspire to act in the highest ethical manner."

— Susannah Webb



Zap Mama performs an a cappella mix of Pygmy music, Central African and Arabic pop tunes, Afro-Cuban rhythms and American soul and gospel. The Belgian group makes its St. Louis debut in Edison Theatre Sept. 24.

On the cutting edge

Universally acclaimed Zap Mama brings world music to St. Louis

Zap Mama, a five-woman a cappella group from Belgium, will make its St. Louis debut at 8 p.m. Sept. 24 as a part of the "OVATIONS!" series at Edison Theatre. This multicultural, multilingual, multitalented world music ensemble will perform one night only.

Formed in 1990 by Marie Daulne, Zap Mama immediately jumped onto the cutting edge of international music with its joyous a cappella mix of Pygmy music, Central African and Arabic pop tunes, Afro-Cuban rhythms and American soul and gospel.

The group released its first album in 1991, and over the next two years found an appreciative worldwide audience. Released in 1993 in the United States, the album *Zap Mama: Adventures In Afropea* met with near-universal acclaim. The

recording went on to become the best-selling world music album of the year according to *Billboard Magazine*. It also served as a springboard for an extensive round of international touring and for opening a series of dates in the United States for the band 10,000 Maniacs.

Returning from the road in 1993, Zap Mama immediately began work on a follow-up to its first album. The result is *Sabsylma*, released in 1994. The album reflects the experiences the group had on the road, including the harsh realities of life in many parts of the world.

Tickets to "OVATIONS!" events are \$20. Discounts are available for students and senior citizens. Tickets are available at the Edison Theatre box office or through Metrotix at 534-1111.

For more information, call 935-6543.

Novelist Paul Auster launches reading series

The International Writers Center's second reading series will feature five writers. All programs begin at 8 p.m. at the West Campus Conference Center in the former Famous-Barr building in Clayton.

The series will kick off with New York novelist Paul Auster on Tuesday, Sept. 13.

He will be introduced by Benjamin Taylor, Ph.D., adjunct assistant professor of English.

The other programs will feature poet Emily Grosholz on Nov. 29, award-winning novelist David

Bradley on Jan. 31, poet Rosemary Catacalos on March 14, and novelist Michael Ondaatje on April 18.

Auster's most recent novel, *Mr. Vertigo*, is set in St. Louis. The novel tells the story of a street kid apprenticed to Master Yehudi, a magician who plies his trade while traveling throughout the Midwest. The apprentice learns to levitate and becomes "Walt the Wonder Boy." Later he lands in Chicago and opens Mr. Vertigo's Nightclub, where he befriends

Dizzy Dean, the quirky, loquacious baseball pitcher who lives up to his descriptive name.

Mr. Vertigo is Auster's eighth novel. His others include *The New York Trilogy* (*City of Glass*, *Ghosts*, and *The Locked Room*), *In the Country of Last Things*, *Moon Palace*, *The Music of Chance*, and *Leviathan*. Auster also has written four books of poetry. A volume of selected poems, *Disappearances*, was published in 1988. He has translated the work of several French poets, including Stephane Mallarmé, and was the editor of *The Random House Book of 20th-Century French Poetry* (1982).

In 1990 Auster received the Morton Dauwen Zabel Award from the American Academy and Institute of Arts and Letters for "a fiction writer of original, progressive and experimental tendencies." In 1992 he was awarded the Chevalier de l'Ordre des Arts et des Lettres from the French Minister of Culture.

A season subscription for the series is \$20. Individual tickets are \$5. Students with a valid I.D. and senior citizens are admitted free.

The series is underwritten by the Lannan Foundation. For more information, call 935-5576.



Paul Auster



From left, Ruth Moenster, Eleanor Grob and Frances Mack were the three retirees at the luncheon with the longest amount of service to the University. They were recognized and presented with flower baskets. Chancellor William H. Danforth and Gloria W. White, vice chancellor for human resources, celebrate in the background.

University retirees honored for years of service

Dozens of employees who retired from Washington University this year were recognized during an Aug. 29 luncheon at the Whittemore House. Chancellor William H. Danforth congratulated the retirees. Danforth, who has been chancellor for 23 years, has announced his own plans to retire next summer.

"As I approach my own graduation, I feel very lucky to have been a part of Washington University and part of that is because of your work," Danforth said. "We have seen enormous changes at Washington University brought about by your good work. Because of you, we are better able to provide a wonderful education to the young people who come to us and support our faculty in their efforts."

Danforth and Gloria W. White, vice chancellor for human resources, recognized the Hilltop Campus retirees and presented

each with a personalized commemorative walnut plaque.

The Hilltop retirees and their years of service are: Susanne Bell, 25 years; Rosemary Ferrario, 17 years; Frances Handler, 27 years; Aaron Hinton, 15 years; Frances Mack, 27 years; Ann Magner, 18 years; Ruth Moenster, 23 years; Betty Mueller, 20 years; Lorraine Palmer, 18 years; Katherine Ponte, 10 years; Jean Salg, 38 years; Trudi Spigel, 26 years; Soren Toroian, 16 years; and Harriet Williams, 31 years.

Danforth and William Peck, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine, recognized and presented plaques to those retiring from the School of Medicine.

"I consider commencement a time when new lives commence and I know you are looking forward to rich and fulfilling experiences," Peck said. "One of the rea-

sons we have such a great medical school is you and, despite the Draconian predictions you hear about healthcare reform, I want to assure you that you are not deserting a sinking ship."

The medical school retirees and their years of service are: Doris Alberts, 10 years; Shirley Axelrod, 14 years; Theresa Baldwin, 13 years; Archie Barbour, 28 years; Marguerite Boyd, 23 years; Mary Caradine, 13 years; Lois Clarke, 10 years; Jewel Edwards, 17 years; Lois England, 18 years; Romaine Ford, 11 years; Jesse Goree, 16 years; Eleanor Grob, 29 years; Bonnie Heibel, 14 years; Charlene Hepp, 20 years; Leonard King, 27 years; Helen Klos, 17 years; Maxey Long, 22 years; Joe Moody, 19 years; Sylvia Sirkin, 16 years; Rosalyn Stein (deceased), 29 years; Mildred Williams, 36 years; Jane Woods, 24 years; and Margaret Young, 20 years.

Justice named visiting professor at School of Law

Andrew G.T. Moore II, J.D., who served for the last 12 years as an influential justice of the Delaware Supreme Court, has been appointed the Lehmann Distinguished Visiting Professor for the fall 1994 semester at the School of Law, Dean Dorsey D. Ellis Jr., J.D., has announced.

"Justice Moore is one of the nation's leading authorities in corporate law," Ellis



Andrew G.T. Moore II

said. "He will enrich our corporate law curriculum and our students will have the unique opportunity of studying with a judge who authored many of the leading decisions in this field.

We anticipate that he will teach

courses covering the areas of corporate finance and corporate takeovers."

Moore was appointed to the Delaware Supreme Court by Gov. Pierre S. DuPont IV in 1982, and unanimously was confirmed by the state Senate for a 12-year term. During his tenure on the court, Moore decided many cases of national interest, including some of the most significant hostile takeover cases of the 1980s.

"I am honored by this appointment, and look forward to joining the excellent faculty of this law school," Moore said. "The students are first rate, and that makes teaching both an intellectual challenge and just plain fun. To be able to follow in the footsteps of F. Hodge O'Neal, one of the intellectual giants of corporation law, and a man whom I knew and admired, is one of the thrilling aspects of this appointment."

O'Neal, a former dean of the School of Law, was the nation's foremost authority on closed corporations and shareholder disputes. He died in 1991.

Moore served as the law school's first Judge in Residence in 1991 and delivered the keynote speech at the school's F. Hodge O'Neal Conference on Corporate Law and Finance in 1991.

University, secondary school teachers conduct high-tech research in high school classrooms — from page 1

Elgin, who has been the driving force in the Washington University/University City Science Education Partnership program and the Undergraduate Biological Sciences Education Program of the Howard Hughes Medical Institute (HHMI). Both are outreach programs involving many Washington University faculty and area science teachers.

"She can use classical genetic approaches to analyze dominant and recessive traits, for instance, and extend that experience into thinking about how genetics is being applied to research. One useful thing to her is that she can take the essence of our work back to her classroom and it doesn't require much fancy equipment. The students should be able to see that not all research involves complicated equipment, and thus, that original science is not out of their grasp."

Moreno has learned the techniques of operating a carbon dioxide diffuser, which anesthetizes the fruit flies for analysis, and will be able to reproduce the system in her Wentzville school laboratory, thanks in part to a \$750 equipment stipend that is part of the program.

"I'm learning how to maintain the fly stocks, how to prepare their food, which is corn meal, glucose and sucrose, and how to cross the flies and look at their progeny," Moreno said. "Students will have their own stocks of flies that they can cross and they'll have to know what phenotype they're looking for. If students can buy into projects like this, they can possess part of it, have an investment in it, then they like it much more. Hopefully, some may find they want a career in science."

Moreno comes to science teaching in mid-life; she earned a bachelor's degree in biology and education in 1993 from the University of Missouri, St. Louis, after a varied career as homemaker and postal worker, among other occupations. Her two children are in college.

"A revolution in education has to take place to keep students interested in science and to keep them up-to-date with the many

rapid changes in science," she said. "A lot of high school teachers really don't know what goes on today in university laboratories. Without professors like Dr. Elgin and Dr. Kirk and programs like these, the revolution couldn't take place."

Moreno's colleague, Loretta Fortner, expressed similar concerns about science education and the need to reach children. Looking over her 26 years as a science teacher, she said she believes that science interest among students is lessening.

"This is a big concern to me," she said. "I'm not sure if they're afraid to try to learn. Our knowledge base has increased so much that learning science can be intimidating. I'd like to take away that uncertainty and give them confidence. This program gives me lots of ideas."

Fortner learned to activate a jumping gene called a transposon that moves from place to place in *Volvox*. A DNA parasite, the transposon is "selfish" DNA with no known benefit to its host, but Kirk is trying to use the gene's physical prowess to get it to jump into the middle of a known gene and inactivate that gene. When that happens, it will act as a "tag" that will permit isolation of the DNA on either side, which represents the gene of interest. There may be as many as 10,000 genes on 14 chromosomes in *Volvox* (compared to an estimated 100,000 genes and 46 chromosomes in humans). Of all these *Volvox* genes, Kirk specifically is searching for three that are key to the development of germ cells and body cells in *Volvox*.

"Loretta has been a big part of our research this summer," Kirk said. "She has been able to make the transposon jump 30 times more frequently, which in effect should cut our search time down by 30-fold."

Fortner accomplished this by using different levels of ultraviolet light, giving *Volvox* hot and cold treatments and nitrogen-starving the organism. In her own school laboratory she will be able to duplicate, on a

smaller scale, the algal growth condition she has used in the experiments with Kirk by using two fluorescent lights, a cardboard box and an aquarium air pump. For her purposes, she will get a similar effect from this equipment that Kirk gets with a culture facility costing \$20,000.

"I have the philosophy that 'less is more' in science curriculum," said Fortner. "We need to teach fewer concepts and go into more depth with each one. I'll be able to use the essence of Dave's work in a very basic way to teach students things about genetics."

"Working in a program like this is a change of pace. While I didn't have a lot of free time this summer, I find this refreshing and different. You hear so much about teacher burnout; I think teachers need to do more things like this to prevent that syndrome."

Moreno and Fortner each received a \$4,250 stipend from the program through the 10 weeks. They also received \$750 for supplies at the start of the school year.

In previous summers, Moreno and Fortner participated in a four-week lecture/laboratory genetics course through the Undergraduate Biological Sciences Education Program of the HHMI. Numerous Washington University faculty have participated in the Hughes program. The Hughes project served as a sort of genetics primer for both teachers. "Most teachers who do these kinds of programs are pretty energetic souls," noted Elgin. "It's not like they want to sit on the beach all summer. We know they love this kind of work and find it very valuable."

— Tony Fitzpatrick

Campus Watch

The following criminal incidents were reported to the Hilltop Campus Police Department Aug. 31-Sept. 1. Readers with information that could assist the investigation of these incidents are urged to call 935-5555. This release is provided as a public service to promote safety awareness on campus.

Aug. 31

9:53 a.m. — An assault and possible strong-armed robbery occurred at 8 p.m. Aug. 30 on the sidewalk between the Simon Hall parking lot and Forsyth Boulevard. A subject, described as a 6-foot-tall, thin white male wearing a white T-shirt and black shorts, reportedly grabbed a female student's backpack. When the victim screamed, the suspect ran west toward Francis Field.

11:42 a.m. — The rear license plate was reported stolen from a staff member's vehicle parked in the lot at the corner of Millbrook and Skinker boulevards sometime between 3:15 p.m. Aug. 30 and 12:45 a.m. Aug. 31.

Sept. 1

8:07 a.m. — A staff member's purse was reported stolen from a desk in Room 200 Cupples II Hall sometime between 5:30 and

7:15 p.m. Aug. 31. The purse later was recovered in the women's restroom on the third floor of Lopata Hall. Cash was reported missing.

11:50 a.m. — A student reported that her purse was removed from her backpack while she was eating lunch in the Rathskeller restaurant in Umrath Hall sometime between 12:30 and 1 p.m.

4:22 p.m. — A student reported that her wallet was removed from her book bag while it was on a bench in the women's restroom in Mallinckrodt Center sometime between 2:15 and 2:30 p.m.

8:21 p.m. — A pizza delivery person reported that two pizzas and a warmer bag were stolen from his unlocked vehicle parked just north of Hitzeman Residence Hall at approximately 8 p.m.

Introducing new faculty members

The following are new faculty members on the Hilltop and Medical campuses:

Mark M. Bahn, M.D., Ph.D., assistant professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, comes from the University of Wisconsin in Madison, where he was a neuroradiology fellow and a clinical instructor in neuroradiology. He studies brain function using magnetic resonance imaging techniques. He received a bachelor's degree in chemistry from Carleton College in Northfield, Minn., in 1977 and a medical degree in 1981 from the University of Minnesota School of Medicine in Minneapolis. He received a doctorate in biomathematics from the University of California, Los Angeles, School of Medicine in 1988.

Robert E. Criss, Ph.D., professor of earth and planetary sciences, comes from the University of California, Davis, where he was professor of isotope geology. His research interests include isotope phenomena in igneous rocks. He received a bachelor's degree in geology in 1973 from Case Western Reserve University in Cleveland. He received a master's degree in geology in 1974 and a doctorate in geology in 1981, both from the California Institute of Technology in Pasadena.

Jeffrey A. Dobkin, M.D., assistant professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, comes from Santa Barbara, Calif., where he was a staff physician for the Cancer Foundation of Santa Barbara. His research focuses on oncologic applications of positron emission tomography. He received a bachelor's degree in biology in 1985 from the University of Missouri-Kansas City and a medical degree from the same institution in 1986.

Subhash Suri, Ph.D., associate professor of computer science, comes from Bell Communications Research in Morristown, N.J., where he was a technical staff member. His research interests include computational geometry and algorithms. He received a bachelor's degree in electronics and communication engineering in 1981 from the University of Roorkee in India. He received a master's degree in electrical engineering and computer science and a doctorate in computer science, both from Johns Hopkins University in Baltimore, in 1984 and 1987.

Kay D. Thompson, Ph.D., assistant professor of civil engineering, comes from the Massachusetts Institute of Technology in Cambridge, where she received a doctorate in civil and environmental engineering in 1994. Among her research interests are contaminants and environmental problems related to water systems. She received a bachelor's degree in civil engineering and operations research in 1987 from Princeton (N.J.) University and a master's degree in environmental engineering in 1990 from Cornell University in Ithaca, N.Y.

For The Record

For The Record contains news about a wide variety of faculty, student and staff scholarly and professional activities.

Of note

Mark Buckles, a senior English literature major, received a Rotary Foundation Ambassadorial Scholarship. The \$22,000 award covers full tuition and living expenses for a year of graduate study at a foreign university. ...

Ross L. Cagan, Ph.D., assistant professor of molecular biology and pharmacology, received a \$415,103 three-year grant from the National Eye Institute for a project titled "Specifying the First Neuronal Fate in the *Drosophila* Eye." ...

D. Anne Cross, M.D., assistant professor of neurology and neurological surgery, received a \$222,921 three-year grant from the National Multiple Sclerosis Society for a project titled "Nitric Oxide: Its Role in Central Nervous System Inflammatory Demyelination." ...

Milorad P. Dudukovic, Ph.D., Laura and William Jens Professor of chemical engineering and director of the Chemical Reaction Engineering Laboratory, has been named a fellow of the American Institute of Chemical Engineers. He was cited for his accomplishments as an educator and researcher. ...

Eric E. Klein, instructor of radiology in physics, received the American Association of Physicists in Medicine Travel Award for 1994. He will use the travel grant to visit and lecture in Sweden this year. ...

Samuel A. Wickline, M.D., associate professor of medicine and adjunct associate professor of physics, received a \$227,913 corporate gift from Hewlett-Packard for his research on intravascular ultrasound and ultrasonic tissue characterization of atherosclerosis. The gift will provide more than \$200,000 worth of state-of-the-art electronics and computer equipment for Wickline's new Ultrasonic Laboratory to be located at the Jewish Hospital Research Annex.

Speaking of

During the Alexander Graham Bell Association for the Deaf's biennial international conference held in Rochester, N.Y., several faculty members from the Department of Speech and Hearing at the Central Institute for the Deaf (CID) gave presentations. **Julia Biedenstein**, cochlear implant project coordinator, and **Lisa S. Davidson**, lecturer in audiology and school audiologist, presented "Connected Discourse Tracking With Profoundly Hearing-impaired Children." **Deborah Carter**, CID teacher, and **Karen R. Kupper**, lecturer in education of the hearing impaired and a coordinating teacher, presented "Around the United States in 180 Days: A Social Studies Curriculum." **Barbara Lanfer**, CID teacher, and **Pamela J. Zacher**, lecturer in education of the hearing impaired and a coordinating teacher, presented "Teaching Language Through Theme-based Units." **Jean S. Moog**, associate professor of education of the hearing impaired and principal of the CID School, delivered sessions on "Parents Can Help Their Child Learn to Talk" and "Cochlear Implants in Children: What Should be

Expected." **Karen K. Stein**, assistant professor of education of the hearing impaired and coordinator of school research and training projects, along with **Christine H. Gustus**, lecturer in education of the hearing impaired and a coordinating teacher, spoke on "Techniques for Encouraging, Developing and Correcting Speech in the Classroom." ...

During the Midwest Academy of Management meetings in Chicago, **Kenneth Chilton**, deputy director of the Center for the Study of American Business, gave a presentation on "A Property Rights Perspective on Human Capital." ...

Charles M. Drain, Ph.D., a postdoctoral research associate in chemistry, presented the Distinguished Alumni Lecture during the annual Awards Day sponsored by the chemistry department at the University of Missouri-St. Louis. His talk was titled "Porphyrin Assemblies: Insights Into the Photosynthetic Antenna Complex and Molecular Electronics." ...

Sol. L. Garfield, Ph.D., professor emeritus of psychology, participated in two symposia at the Society of Psychotherapy Research's meeting in York, England. He was the moderator of "Updates and Critical Reviews of Psychotherapy Research." In addition he was a discussant for "Recent Developments in Research Technique and Methodology." ...

Raymond L. Hilgert, D.B.A., professor of management and industrial relations, presented a paper titled "Labor Union Dues: A Research Study and Some Observations Concerning Whether Union Dues Are 'Out-of-Line'" during the Midwest Society for Human Resources/Industrial Relations' session in Chicago. The society is a division of the Midwest Business Administration Association. ...

Ronald P. Loui, Ph.D., associate professor of computer science, gave talks on four continents during a six-week period. He spoke in Tokyo; Bonn, Germany; Argentina, South America; and Seattle. He also gave talks at the Meijigakuin School of Law in Tokyo and the University of Bologna School of Law in Italy. ...

Donald W. Nielsen, Ph.D., director of the Central Institute for the Deaf (CID) and chair of the Department of Speech and Hearing at CID, delivered the presidential address during the Society of Research

Administrators' Western Section's annual meeting in Maui, Hawaii. ...

At the University of Orleans in France, **Barbara Abraham Shrauner, Ph.D.**, professor of electrical engineering, spoke on "Hidden and Non-local Symmetries of Non-linear Differential Equations." She also gave a talk titled "Hidden Symmetries and Non-local Group Generators for Ordinary Differential Equations" during the International Association for Mathematics and Computers in Simulation World Congress in Atlanta. She organized two sessions for the meeting.

On assignment

Henry D. Royal, M.D., professor of radiology and associate director of the Division of Nuclear Medicine at the School of Medicine's Mallinckrodt Institute of Radiology, was named one of eight international consultants involved in a follow-up study of the 1986 nuclear reactor explosion at Chernobyl.

To press

Louis V. Avioli, M.D., Sydney M. and Stella H. Shoenberg Professor of Medicine and director of the Division of Bone and Mineral Diseases, and **Leonard Rifas**, instructor in medicine in the division, published a paper titled "Phosphate Transport in Osteoblasts From Normal and X-linked Hypophosphatemic Mice" in the *Calcified Tissue International* journal. ...

Robert K. Weninger, Ph.D., associate professor of German and comparative literature, has published a book titled "Literarische Konventionen. Theoretische Modelle/Historische Anwendung" (Literary Conventions. Theoretical Models/Historical Application). The book is part of the Stauffenburg Colloquium Series published by Stauffenburg Verlag in Tübingen, Germany.

Guidelines for submitting copy:

Send your full name, complete title, department, phone number and highest-earned degree, along with a typed description of your noteworthy activity to For The Record, c/o Carolyn Sanford, Campus Box 1070, or p72245cs@wuvmd.wustl.edu. Items must not exceed 75 words. For information, call Sanford at 935-5293.

Junior wins Mercury Seven Scholarship

Robert J. Pollack, a junior in mathematics, is one of 10 college science and engineering students to receive a \$7,500 Mercury Seven Scholarship.

Pollack, who hails from Whitestone, N.Y., won the scholarship established by the members of America's original Mercury Seven astronauts. **Ronald C. Freiwald, Ph.D.**, associate professor of mathematics, nominated Pollack, who has twice participated in the Putnam competition, a nationwide mathematics contest. Pollack teaches a calculus subsection to fellow undergraduates at Washington and is interested in number theory and complex analysis. He plans to obtain a doctorate in mathematics and become a university teacher and researcher.

The Mercury Seven Foundation was established in 1984 by the six surviving members of America's original Mercury

Seven and Betty Grissom, widow of the seventh astronaut, Virgil "Gus" Grissom. **William Douglas, M.D.**, the Project Mercury flight surgeon, and **Henri Landwirth**, an Orlando business person and longtime friend of the astronauts, also established the foundation.

The current surviving astronauts are **Malcolm S. Carpenter**, **L. Gordon Cooper Jr.**, **John H. Glenn Jr.**, **Walter M. Schirra** and **Alan B. Shepard Jr.** **Donald K. "Deke" Slayton** died June 13, 1993.

The goal of the non-profit tax-exempt foundation is to strengthen America's position in science and technology by awarding scholarships to third- and fourth-year undergraduates and graduates who have demonstrated mental ability, self-discipline and high creative drive in the science and engineering fields.

Gloria White elected chair of local Red Cross

Gloria W. White, vice chancellor for human resources, recently was elected board chair of the American Red Cross' St. Louis Bi-State Chapter.

A Red Cross board of directors member since 1988, White is the first African-American to be elected board chair. In this position she oversees the chapter's activities, which include disaster relief, health and safety education, adult day care, homeless services and other programs.

The election was held at the Red Cross chapter's annual meeting this summer. The gathering was one of several highlights of White's busy summer. As chair of Blitz Build, a joint project between the Delta Sigma Theta sorority and Habitat for Humanity, she oversaw the construction of



Gloria W. White

White has been an administrator at Washington University since 1967. She was named assistant vice chancellor for personnel and affirmative action in 1975 and vice chancellor in 1988.

15 homes for low-income residents in St. Louis and East St. Louis in July. Also during that month, she chaired the Delta Sigma Theta sorority's national convention in St. Louis.

Campus Authors

The following is a recent release available at the Campus Bookstore in Mallinckrodt Center on the Hilltop Campus or at the Washington University Medical Bookstore in the Olin Residence Hall. For more information, call 935-5500 (Hilltop Campus) or 362-3240 (School of Medicine).

The Sickroom in Victorian Fiction: The Art of Being Ill is the title of a new book by **Miriam Bailin, Ph.D.**, assistant professor of English. In this exploration of the significance of illness in the Victorian literary imagination, Bailin maps the cultural implications and narrative effects of the sickroom as an important symbolic space in 19th-century life and literature. She draws on non-fictional accounts of illness by **Julia Stephen**, **Harriet Martineau** and others to illuminate the presentation of illness and ministration, patient and nurse, in the fiction of **Charlotte Brontë**, **Charles Dickens** and **George Eliot**. Bailin argues that the sickroom functions as an imagined retreat from conflicts in Victorian society, and that fictional representations of illness serve to resolve both social conflict and aesthetic tension. (Cambridge University Press, Cambridge, England)



Miriam Bailin

Opportunities & personnel news

Hilltop Campus

The following is a list of positions available on the Hilltop Campus. Information regarding these and other positions may be obtained in the Office of Human Resources, Room 126 North Brookings Hall, or by calling 935-5990. Note: All positions require three letters of recommendation.

Project Coordinator

950023. *George Warren Brown School of Social Work*. Requirements: Bachelor's degree; strong communication and interpersonal skills; ability to organize and work under pressure; typing 50 wpm with accuracy; knowledge of American Indian culture preferred. Clerical tests required.

Research Assistant

950025. *Department of Biology*. Requirements: Bachelor's degree; skill equivalent to Lab Tech IV, that is, a working knowledge of all techniques and instruments in the lab, plus ability to work without supervision; some particular training and experience in the area of the research project, or a great deal of experience in related areas. The person filling this new position will assist in studies started by departing postdoc. Resume required.

Administrative Assistant for Financing Programs

950026. *Student Financial Services*. Requirements: Some college; receptionist and bookkeeping experience preferred; experience with FIS and SIS systems. Duties: Assist in administering CSP and TIP functions, student accounting and registrar functions; assist as needed to front desk service functions; assist other staff as needed; typing 45 wpm with accuracy. Clerical tests required.

Sales Associate

950030. *Campus Stores*. Requirements: Good customer relations; ability to stand, lift display merchandise; organizational skills; flexibility; cashiering experience; typing 20 wpm with accuracy; willingness to work evenings and weekends. Clerical tests required.

Client Services Specialist

940031. *Academic Computing Network*. Requirements: High school graduate with business school or comparable experience; excellent interpersonal skills and willingness to work with students and student employees; user of computer systems, such as Macintosh, DOS, MS-Windows, UNIX; experience with networked computers, LANS; comfortable with rapidly changing technical environment; typing 35 wpm with accuracy. Clerical tests required.

Administrator, Center for Mental Health Services Research

950039. *George Warren Brown School of Social Work*. Requirements: Master's degree in social work or related master's degree; knowledge of mental health services; excellent written and verbal communication skills; administrative competence; experience in grant writing; knowledge of the research process; two years professional experience, preferably in a management capacity in mental health. Resume required.

Registered Nutritionist, Part time

950040. *Health Service*. Requirements: Bachelor's degree in nutrition-dietetics; registered dietitian; five years of clinical experience in field; strong interest in working with patients with eating disorders; strong interpersonal and communication skills. The position is being offered for the nine-month academic year with approximately four scheduled hours per week. In addition the nutritionist would conduct one- or two-hour educational seminars about once per month. Resume required.

Special Projects Assistant

950042. *Olin Library*. Requirements: Two years of college-level study or equivalent

work experience; ability to work with details in an organized and accurate manner; physical stamina; typing 35 wpm with accuracy; ability to work in a rapidly changing environment under deadlines; ability and flexibility to perform a wide variety of duties with the possibility of working evening and/or weekend hours; library work experience desirable; computer word processing and data entry skills desirable. Clerical tests required.

Technical Sales Specialist

950047. *Campus Stores*. Requirements: Some college; knowledge of personal computers and popular software; experience using a variety of microcomputer peripherals, such as modems and printers; physical ability to lift system components; ability to work evenings and Saturdays. Resume required.

School Accountant

950049. *Accounting Services*. Requirements: Undergraduate degree in accounting or finance and/or a Certified Public Accountant; a master's degree in business administration is a plus; several years of public accounting experience, excellent accounting skills and a working knowledge of GAAP; three to five years of fund accounting experience, preferably in a complex university environment; an analytical mind with a high degree of intelligence and the ability to "think on his/her feet"; experience working with local area networks and personal computers; proficiency in word processing, spreadsheet and data base management software; excellent interpersonal skills; a service-oriented communicator who is accessible and a team player; self-motivated, driven by the need to succeed. Resume required.

SIS Systems Assistant

950050. *University Registrar*. Requirements: Four years of college, bachelor's degree preferred. Duties: Understand and maintain systems files within the Student Information data base pertaining to classes, titles, registration and grade processing operations; serve a "Help Desk" function university-wide to deans and departmental offices; coordinate operations between the schools and the Registrar's Office specifically related to improving and maintaining course directories. Clerical tests required.

Seismic Deployment Coordinator, Part time

950052. *Earth and Planetary Sciences*. Requirements: Bachelor's degree; knowledge of SUN and Macintosh computer systems; acquaintance with principles of seismology. Resume required.

Secretary/Receptionist

950055. *Student Affairs*. Requirements: Some college; typing 50 wpm with accuracy; ability to interact and maintain positive relationships and pleasant disposition in dealing with students, staff and general public; flexibility; attentiveness to detail; team player; ability to set priorities and work on numerous tasks with constant interruption; willingness to work flexible hours if necessary; high service orientation; sense of humor. Clerical tests required.

Administrative Assistant

950058. *School of Law*. Requirements: Some college; experience with DOS-based computers and WordPerfect software preferred; experience with Windows and Aldus Pagemaker preferred; excellent grammar, spelling and punctuation skills; good filing, organizational and coordination skills; strong attention to detail; ability to work independently; some experience planning social events and working with caterers preferred; typing 50 wpm with accuracy. Clerical tests required.

Associate Engineer

950059. *Academic Computing Network*. Requirements: Bachelor's degree in computer science, electrical engineering or

comparable experience; working knowledge of TCP/IP networks, LANS, WANS, Novell and Appletalk; familiarity with a variety of computing environments, including Macintosh, DOS, and Windows PC, OS/2 and UNIX; strong problem-solving skills; good verbal and written communication skills; system administration experience desirable. Resume required.

Senior Project Leader

950065. *Computing and Communications*. Requirements: Five years data processing experience; proven ability to design, program and install major data processing systems; proven ability to lead others in data processing project development; proven ability to design, write and install MANTIS and COBOL; IBM mainframe and personal computer experience desirable. Resume required.

Medical Campus

The following is a partial list of positions available at the School of Medicine. Employees who are interested in submitting a transfer request should contact the Human Resources Department of the medical school at 362-4920 to request an application. External candidates may call 362-7195 for information regarding application procedures or may submit a resume to the Human Resources office located at 4480 Clayton Ave., Campus Box 8002, St. Louis, Mo., 63110. Please note that the medical school does not disclose salary information for vacancies, and the office strongly discourages inquiries to departments other than Human Resources.

Medical Transcriptionist

950075-R. *Internal Medicine*. Schedule: Part time, 0-based hours. Requirements: High school graduate or equivalent; experience as a medical transcriptionist; knowledge of medical terminology and dictaphone skills; typing 60 wpm.

Technical Writer/Editor

950089-R. *Surgery*. Requirements: Bachelor's degree, master's degree or Ph.D. preferred; experience in National Institutes of Health grant writing in biomedical sciences. Project will last from September 1994 to January 1995.

Medical Secretary I

950097-R. *Pediatrics*. Schedule: Part time, 20 hours per week, Tuesdays, Wednesdays and Thursdays. Requirements: High school graduate or equivalent; two years office experience in a medical environment; knowledge of medical terminology preferred; knowledge of WordPerfect; typing 65 wpm.

Supervisor, Clinical Office

950099-R. *Otolaryngology*. Requirements: High school graduate or equivalent; five years progressive work-related experience; college or technical training preferred; supervisory experience; WordPerfect experience preferred; typing 40 wpm. Position located at West County office.

Secretary I

950100-R. *Pharmacology*. Schedule: Part time, 30 hours per week, 9 a.m.-3 p.m. Mondays through Fridays. Requirements: High school graduate or equivalent; some office experience preferred; knowledge of WordPerfect; typing 50 wpm.

Manager of Administrative Service

950112-R. *Neurology*. Requirements: Bachelor's degree in business, hospital administration or public administration; at least one year administrative and supervisory experience; knowledge of University accounting systems; experience in grant applications and grant budgeting preferred.

Clerk Typist II

950120-R. *Risk Management*. Schedule: Part time, 24 hours per week, 8 a.m.-5

p.m. Mondays, Wednesdays and Fridays. Requirements: High school graduate or equivalent with one year related experience, some college preferred; ability to transcribe legal and medical dictation; typing 50 wpm; experience with WordPerfect 5.1.

Secretary II

950124-R. *Radiology*. Requirements: High school graduate or equivalent; some clerical experience; word processing and spreadsheet experience; typing 50 wpm. Position located at Barnes-St. Peters.

Phlebotomist

950129-R. *Pediatrics*. Schedule: Part time, 16 hours per week, Saturdays and Sundays with rotating shift hours. Requirements: High school graduate or equivalent with pediatric phlebotomy experience; phlebotomy certification preferred.

Medical Secretary I

950131-R. *Psychiatry*. Schedule: Part time, 20 hours per week, flexible hours. Requirements: High school graduate or equivalent; secretarial experience or college course work; knowledge of medical terminology; experience with Macintosh and Microsoft Word; typing 60 wpm.

Q & A

Q&A provides an opportunity for faculty and staff to have their questions about the University answered by the appropriate administrators. Employees are encouraged to submit questions of broad interest to Q&A, c/o Susannah Webb, Campus Box 1070, or p72245sw@wumc.wustl.edu. Though employee questions will appear anonymously in the Record, please submit your full name, department and phone number with your typed question. For information, call Webb at 935-6603.

Q: Can staff and faculty use the student escort service, or is it just for students?

A: A variety of escort services are available to all members of the Washington University community while on the Hilltop Campus. There may be a misconception that escorts are available only to students. In fact, any employee, faculty member, student or visitor may request an escort to move safely from one place to another on campus, including the South Forty residence hall area. Beginning in mid-September, the Transportation Department will operate an escort shuttle service from 6 p.m. to 1 a.m. every day that will transport individuals to and from any campus location that is accessible by vehicle. To request shuttle service, call 935-7777.

The Hilltop Campus Police Department will arrange escorts upon request at any time by calling 935-5555. During evening hours, police service aides will provide walking escorts to and from any campus location. If the escort shuttle and police service aides are not available, University police officers will provide escorts to and from anyplace on campus.

Later this month, the student-run Student Escort and Area Security (SEAS) service will be available to provide escorts from 9 p.m. to 2 a.m. seven days a week. SEAS will use a desk and phone line in Olin Library as an operations base. The SEAS phone number will be announced when the service is available.

All of these services are available to any member of the Washington University community or any campus visitor. — William Taylor, chief, Hilltop Campus Police Department